AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A device for wavefront measurement of an optical imaging system by means of a phase-shifting interferometry technique, the device comprising:

a mask structure which is arranged on an object side, and

a grating structure which is arranged on an image side,

~~wherein the mask structure has a different dimensionality than the grating structure, and~~

wherein the mask structure which is arranged on the object side comprises one or more ~~one-dimensional~~ mask structure patterns with a periodicity in exactly one direction, and the grating structure to be arranged on the image side comprises one or more ~~two-dimensional~~ grating structure patterns with a periodicity in exactly two non-parallel directions, or

wherein the mask structure comprises one or more ~~two-dimensional~~ mask structure patterns with a periodicity in exactly two non-parallel directions, and the grating structure comprises one or more ~~one-dimensional~~ grating structure patterns with a periodicity in exactly one direction.

2. (previously presented): A method for wavefront measurement of an optical imaging system by means of a phase-shifting interferometry technique, the method comprising:

at least one of:

moving a phase-shifting structure and a detector element laterally relative to the optical imaging system to be measured, and

moving an object-side mask structure laterally relative to the detector element,

wherein a pupil image offset occurring owing to the relative lateral movement is taken into account by back calculating interferograms, wherein the interferograms are respectively recorded by the detector element, using a phase-shifting characteristic associated with the lateral movement, or

wherein the pupil image offset is taken into account by a computational correction of wavefront derivatives, obtained from the recorded interferograms, in the direction of lateral movement.

3. (previously presented): The method according to Claim 2, wherein the computational correction of wavefront derivatives in the direction of lateral movement is performed using the relationship:

$$I^{(2)}(n) = \cos(S_x{}^{(1)} - \frac{\partial S_x{}^{(1)}}{\partial x}\frac{\Delta x(n-1)}{N} + \frac{2\pi(n-1)}{N}) \quad ,$$

which specifies the intensity values $I^{(2)}$ of individual detector element pixels as a function of the nth lateral phase shift with $S_x{}^{(1)}$ as errored wavefront derivative in the phase-shifting direction, from which an error-corrected wavefront derivative ($S_x{}^{(2)}$) is then calculated, wherein N denotes a total number of phase steps.

4. (original): The method according to Claim 2, carried out with aid of a device according to Claim 1.

5. (original): The method according to Claim 3, carried out with aid of a device according to Claim 1.

6. (previously presented): A device for wavefront measurement of an optical imaging system by means of a phase-shifting interferometry technique, the device comprising:

a mask structure which is arranged on an object side, and

a grating structure which is arranged on an image side,

wherein the mask structure which is arranged on the object side consists essentially of one or more ~~one-dimensional~~ mask structure patterns with a periodicity in exactly one direction, and the grating structure to be arranged on the image side consists essentially of one or more ~~two-dimensional~~ grating structure patterns with a periodicity in exactly two non-parallel directions, or

wherein the mask structure consists essentially of one or more ~~two-dimensional~~ mask structure patterns with a periodicity in exactly two non-parallel directions, and the grating structure consists essentially of one or more ~~one-dimensional~~ grating structure patterns with a periodicity in exactly one direction.